

FEEDING STOCK DUCKS

A Number of Things to Be Observed if You Are to Have Ducklings Ready For Early Market.

BY W. R. GILBERT.

It should be the aim of those who require early ducklings for the market to have stock birds in full lay by the end of October or the first of November—that is, before the severe weather sets in.

In order to accomplish this the feeding during September and October must be carefully attended to and the nutritious rather than fattening food be provided for the birds.

By this time last year's ducks should have quite overcome the molt and should have their full complement of feathers.

As far as possible an abundance of exercise should be allowed the birds, and this can only satisfactorily be arranged when a free range is provided. The chief danger of confining them is that under such conditions they are liable to add on flesh too quickly, and on no account should stock ducks be fat.

The difficulty can, of course, be overcome by feeding sparingly upon some-what bulky foods.

Two meals a day will be found quite sufficient, one the first thing in the morning and the other about 3:30 or 4 in the afternoon.

Soft food should be provided for the morning meal and a mixture during this and the succeeding month which we have employed with success is two parts of the middlings, one of the barley meal, one of bran and one of brewers' grains.

At first there may be a slight difficulty in persuading the birds to eat the last mentioned, but they speedily become accustomed to the flavor and eat it readily.

A mixture such as this will keep the ducks in good store condition and will assist egg production at the proper time. No hard or fast rule can be laid down as to the actual amount of food to be supplied, as this varies with the breed and the conditions under which the birds are being kept and with the season.

The only thing to do is to periodically examine them, and if too fat re-

duce the quantity of food; if too lean

the mash should be given to the birds not in a sloppy but a crumbly, moist condition. In the former state too much unnecessary water has to be taken into the system.

The soft food should always be supplied warm.

For the afternoon feeding either hard grain or mash may be supplied. Personally I prefer the latter, but many breeders are in favor of the former.

Should grain be provided oats are the best for the purpose, which should be scattered upon the drinking water.

Good sample oats must be used, as otherwise there is too much husk. If mash is employed—and the two may be fed on alternate days—the same mixture as that for the morning feed will answer well.

If the birds are becoming rather too fat, the proportion of bran should be increased and the barley meal decreased.

The soft food should always be fed from a trough, otherwise so much is trampled on and made unfit for consumption.

A little lean meat is very beneficial for stock ducks and should be mixed with the morning feed for mash. Granulated meat, or butchers' refuse, boiled and chopped up, answers the purpose admirably.

The latter gives equally as good results as the former and is considerably cheaper. Green food should be given liberally to the ducks when they are kept in confinement, those at liberty being able to obtain sufficient for themselves.

During the winter months, when green food is scarce, turnips, swedes, mangels or potatoes form an excellent substitute.

The ducks at liberty can of course procure all the drinking water they require for themselves, but those in runs must be well supplied.

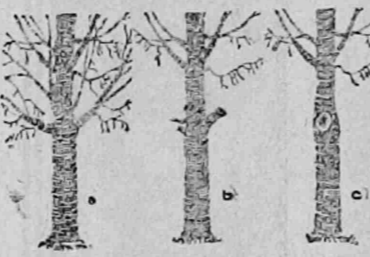
It is inadvisable to allow them to drink a large quantity immediately after eating, as this causes a large portion of the food to pass straight through the body.

Half an hour after they have eaten, however, they may have all they want.

ABUSES IN TREE SURGERY

VALUABLE DIRECTIONS AS TO PRUNING, FILLING CAVITIES AND GENERAL CARE OF SHADE TREES.

The Massachusetts Forestry association is co-operating with the agricultural experiment station at Amherst in the work of preserving the millions of beautiful shade trees of this state. The following is a brief synopsis of a



Proper method of pruning large limbs. A—tree before pruning. B—showing relative distance of cut from the tree trunk. C—same limb cut close and scars finished with the saw and chisel.

bulletin prepared by E. A. Start, secretary of the forestry association, and G. E. Stone and H. T. Fernald of the experiment station.

On country roadsides pruning should be high enough so that the limbs will not interfere with the hay and wood traffic which is common on suburban roads.

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thick lead, tar, shellac or some such substance to prevent decay.

Strictly horizontal cuts should never be left, since they retain water and rot is likely to result, and the cleaner the cut the better it will heal. There is, moreover, less chance for subsequent rotting.

Many of the cavities in the trees are caused by leaving long stubs on the trunk of the tree, which become disintegrated and fall off and the decay follows back into the heart of the tree.

It is therefore essential that close pruning and antiseptic treatment of the wounds should be practiced in order to prevent this decay. The plastic materials in a tree will not follow up a long stump and form a callous unless there are some branches left upon it which bear leaves, and even then healing will take place only close to the living branch on the stump.

Two cuts should be made in pruning practically all limbs to prevent peeling and when this is done some of the less desirable branches may be sacrificed, and those remaining may be cut back to some extent.

The practice of topping trees is injurious and should never be resorted to except in special cases. All of the reserve material in the tree is stored in the roots, stem and branches, and in a transplanted tree this is sufficient to develop the foliage.

It is necessary that a tree should have a certain amount of foliage for growth and development, since the rapidity of growth is dependent upon leaf development.

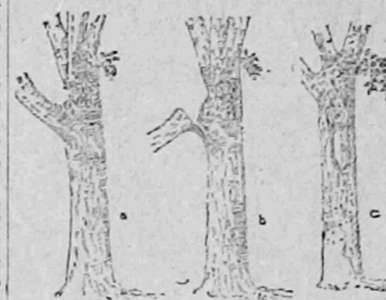
In filling cavities in trees great care should be taken to make the cement wet enough. It should be well troweled and kept moist for a few days.

Exposed tissues in cavities should be treated with creosote to serve as an antiseptic.

The cement should be flush with wood and the cavity so shaped that it forms a wedge, thus preventing the cement from falling out. In case this cannot be done, iron bars tied to the sides of a cavity will be effective.

Unless the cavity is thoroughly cleaned and treated antiseptically the wood underneath the filling will continue to rot and in time the tree will be destroyed.

Many fine shade trees are every year being destroyed by telegraph and telephone wires. Trolley and electric wires are frequently girdled by trees, but they



This method of pruning results in disfigurement of the tree. A—tree before pruning. B—limb cut too close, resulting in peeling of the bark. C—unsightly wound caused by this method.

are a source of danger from the crossing of the wires. When live wires come into contact with limbs some kind of insulator should be employed.



Burning caused by alternating current wire.

Electrical injuries such as are caused by burning are becoming more frequent every year.

PUT THE BARREL ASIDE

Small Packages for Apples—Old Fashioned Barrel Being Discarded for Square Compact Box.

There has been much discussion among apple packers as to where it is best to pack a smaller package than barrels in which to pack apples.

The points made against the use of the box are: The smaller package can receive rougher handling in shipping, as the three-bushel barrel cannot be pitched around; three boxes holding the same quantity of fruit as a barrel will cost more than the latter package; the packages will be placed closer together in storage, preventing as free circulation of air.

The points in favor of the boxes are summed up: The box timber can be bought in the flat and no expert mechanic will be required to make up the packages, whereas high-priced skilled labor is needed to make up the barrels.

Boxes can be exported more cheaply, owing to the fact that space in storage departments of steamers is sold by the cubic foot, and the boxes can be placed more compactly.

When the fruit is placed in storage the fruit in the middle of the package will be more readily reached by the cold air, and the entire package will reach the lower temperature much sooner with the smaller package.

In using the smaller package there will be no temptation to put inferior fruit in the middle of the package, as there often is when packing a barrel of apples.

The chief argument in favor of the box is that the fruit will reach the consumer in better condition, and the consumption will be greatly increased.

The last point is one of the strongest in favor of the use of the box. If the consumer knows he is getting just what he wants he will be willing to buy a bushel of fruit, whereas now he buys perhaps a dozen apples. There

will unquestionably be greater care exercised in packing a bushel box than in packing a three-bushel barrel.

The fruit will be better and will have the confidence of the consumers. Under the present method of packing apples in barrels few city people are able to buy the fruit in the original packages. The barrel is an unwieldy package and is hard to handle. It must be delivered by an express wagon, whereas a small box of apples can be taken home on the street car, if need be.

Few families can take a barrel of apples from cold storage and use the entire three bushels, without considerable loss, even though the contents of the barrel are first-class when taken from the storage.

It is well known that when fruit is taken from storage in midwinter and kept in a warm pantry or cellar it ripens very rapidly.

Few families can use the contents of a three-bushel barrel before some of the fruit has decayed. In the case of the box the bushel can be used up before the fruit has lost its flavor, and there will be a demand for more.

The largest possible package which can be used to get the fruit from the grower to the consumer, without the package ever having been opened, is the ideal package.

The bushel box, therefore, would seem about the extreme limit in size, and it may be the time will come when fancy apples will be packed in small baskets, similar to the eight-pound grape basket.

And when that time comes the consumption of apples will be multiplied many times.

Get the consumer to trust the brand of a certain grower and packer, and let him know the package he buys is the original one in which the fruit left the farm, and he will not hesitate to pay a good price for the fruit.

THE GAPES AND THE CURE

Keep Young Chicks on Clean Ground Where Other Fowls Have Not Trampled.

BY S. C. MILLER.

Strictly speaking, gapes cannot be called a disease, since chicks that are so afflicted are in a physically perfect condition. The trouble is caused by a small red worm, or rather by a collection of such worms, which gather in the windpipes, and as they grow interfere with the breathing and cause the chicks to gasp and after awhile strangle.

The worm is the larvae of eggs deposited in the filth of the yards or coops, and is hatched after being taken into the chick's throat.

They are, when full grown, about one inch long, and very much resemble a pale streak of blood.

Incubator chicks and those which run on clean grassy plots, away from the haunts of the old fowls, are never known to have gapes, while, on the other hand, those which run in yards which are bare of grass, where fowls have been kept year after year, will almost invariably have gapes.

Just guard against the disease by observing a few simple rules, is the best advice. Keep all young chicks on clean ground, away from the house, where old fowls have not trampled over it.

Sprinkle lime and carbolic acid over the yard, house and walks, and see that only fresh water and pure food are given the chicks.

If only a few chicks are affected they may be relieved by inserting a feather stripped to within an inch of the tip into the windpipe and turning it gently as it is withdrawn. The worms will adhere to the feathers and thus give the relief sought.

Violent sneezing will dislodge the worms and give relief, and this may be produced by fumes of tobacco smoke or carbolic acid. If using tobacco, catch the chicks and put them in an ordinary bushel feed basket, with any kind of an old cloth thrown over it. Set the basket over a barrel with both heads out and place the tobacco on some live coals in the bottom.

Watch the chicks carefully, so that they do not smother, but let them remain until they become quite dizzy. The sneezing thus produced will give relief.

When using a feather hold the chick between the knees, with back toward you. Then, with the left forefinger and thumb open the mouth, holding the neck well up.

The windpipe will be easy to reach with the feather, which you have previously arranged.

A small piece of camphor the size of a pea will often give relief, as will also an up and down pressure on the fore part of the neck.

When the first sign of gapes appears the chicks should be removed to coops as far distant as possible from the house and kept there until they have passed the danger age.

If they are taken to a place like that when first hatched there will never be a case of gapes among them.

SHEEP RAISING

No use to go into sheep raising unless you have patience, tact and great perseverance.

In selecting a sheep pasture avoid low, damp ground, because sheep will not thrive on it.

Soil underlaid with limestone or dry sandstone makes the best sheep ground.

Sheep are probably more delicate and more easily affected by climatic changes than any other farm animal.

The wise shepherd does not wait until his whole flock is affected before he begins to attempt a cure, but takes every precaution to prevent the disease from getting a foothold.

No use trying to make profit out of sheep on very high-priced land.

A HANDY COOLING DEVICE

People who are without cellars need not give up the idea of having a cool place to keep butter or any perishable food that can be put into crocks or cans.

A splendid cooler with a shed to shade it can be built by one man in two days or less time.

This device consists of a wooden or cement trough eighteen inches wide, six inches deep and long enough to hold the house supply of crocks, cans and jars.

Insert a piece of gas pipe at each end—enough for filling the trough, the other to carry off the overflow.

To give enough pressure to run a full stream of water through the trough the intake should be two inches higher than the outlet.

Vessels of different depth may be placed partly submerged in the water by using a raised bottom in one end of the trough. This false bottom can be made of laths nailed an inch or two apart.

A tight-fitting lid is necessary to keep out the dust and insects.

Put the cooler between the well and your stock tank and pump all the water over in the place through it. You will no longer be troubled with soft butter.

The flow of a spring directed through the box would no doubt keep more fresh water around the crocks than the above described method, but we are not all fortunate enough to have springs near the house.—Theodore Ingels, Utah.

A LIGHT AND AIRY POULTRY HOUSE

This poultry house can be built by any ingenious farmer from the drawings and descriptions given here.

The framework should be made of 2x4 inch stuff, sheathing for the main part of the building. It is never a good plan to use old boards in building a

poultry house, because they harbor insects. Better use new material and cover thoroughly with paint, inside and out.

The figures in the cut represent the following: 1, nests; 2, door; 3, scratching room; 4 and 5, windows, and 6, ventilator. This is as house appears before being covered with building paper or roofing. Ground dimensions 6x10 feet.

Our children and neighbors have a great deal to do with keeping us in the straight road.

The farmer who cannot see over the handle of his plow will never succeed in the course of his life.

The man who is forever defending his actions is sure to raise suspicion against himself—and generally there is good reason for it.

The grouchy neighbor is like a snarling dog. He only succeeds in making himself unpopular without doing good to anybody.

The man who goes singing to his work often, unconsciously, puts good heart into a despondent neighbor.

The good character of our children needs cultivation more than the cultivation of our crops, but some of us have not discovered this fact.

Science in farming is no bugaboo. It is just knowledge and good sense applied to every-day conditions.

A farmer may have a pile of manure that would be worth \$100 in the field but not a cent in the barnyard.

We all want good roads, but most of us are unwilling to let the other fellow make them.

HOW TO MAKE THE SOIL PAY

Essential Principles That Must Be Understood in the Work of Building Up a Profitable Dairy Business.

BY J. MILTON KELLY.

Farmers may be divided into two classes. First, those who may be termed specialists; who believe in making some one branch of farming their specialty, so as to be able to study that one branch and know it thoroughly; and, secondly, those who believe an income may be expected, so that if one source fails they will have something else to fall back upon.

The specialist by concentrating his attention has a better opportunity to thoroughly learn his business and become an expert, so to speak. His weak point is that he has but one source of income, which if his specialty be potatoes, for instance, is quite apt to prove a failure and may result in serious losses if he has invested too much.

The man who makes one crop a specialty contains considerable labor in cutting him out of the business for a number of years, so that the loss of one year's crop would not cause him to sink his fortune.

The strong point of diversified farming is that it is safe. If one crop fails you probably have another which will help you out. Its weak point is that if you follow a number of branches of farm work you will not have a thorough understanding of each branch and cannot expect the best results.

A well-managed dairy farm combines both the strong points of specialized farming and also the strong points of diversified farming, and yet it has none of the weak points of either. The dairyman can make a specialty of that one branch of the business that

the farm is best adapted to and study and learn how to get the very best results, and at the same time have a business that is safe for the reason that he can diversify his crops by following a rotation that will build up his soil and afford food for his dairy cows.

The dairyman who has saved and applied all of the manure crop is not only paying out a large amount of money every spring for a few tons of commercial fertilizers to stimulate his soil to produce profitable crops. He can grow and feed those crops that enrich his fields instead of exhausting their fertility. Clover, alfalfa and the other legumes that live the soil rich in nitrogen and bring up from the subsoil large amounts of plant food and leave it in a form available for the cereal crops are all adapted to the rotations of a high-producing dairy cow.

The failure of any one of his crops will not affect his income to a serious extent for the year.

Dairy farming keeps the soil in the best condition of any kind of farming and when it is properly conducted it not only pays good profits every month but it constantly adds to the dividend paying value of the farm.

We may travel over the different sections of the country and we will find that in all dairy localities the people are well to do and prosperous and their houses, barns and farm equipments are a prosperous appearance.

The first important matter for a farmer to decide before he goes into the dairy business is what particular branch of dairying his farm is adapted to. This must be decided according to

how near he is to railroads, markets or cities, and what kind of conveniences he has for caring for his cattle, milk and its products.

The next matter to decide is that of selecting the breed or kind of cows that are best adapted to the farm, the environments and to that particular branch of the business that is to be your special line of work. If you have warm stable and comfortable surroundings—in fact, I may say Jersey or Guernsey environments—those breeds or high grades from them would prove well adapted to the farm, especially if butter and cream were to be your chief productions. Either of those breeds are economical producers of butter.

If the farm affords large quantities of rich, luxuriant forage and pasturage and you are making a specialty of producing milk of average quality for a city trade, the Holstein cattle will be adapted to your line of business.

If, on the other hand, your farm is rough and rolling and your pastures are large and the forage scant, the Ayrshire cattle will prove the most economical producers, for they have been developed under similar environments.

Whatever breed is selected should be bred along the best blood lines and improved by breeding out all of the inferior animals, and by the use of the best sires that can be obtained. There are numerous other breeds that are claiming dairy honors, but they are not adapted to the farms where dairying is the special line of business.

GOATS AS TRAIL MAKERS

The brush-eating instinct of the Angora goat is being successfully demonstrated on the Lassen national forest in California, where they are cutting trails for fire guards through the brushy areas on the slopes of the mountains.

The animals, which number 3,000, have been divided into two bands, and under the care of the herders are grazed within certain well-defined areas, so that their work may be concentrated on the brush within these limits.

The result is that they have practically killed nearly all the brush in the course of their eating it up entirely, or by barking, as in the case of the heavy manzanita bushes. At the beginning of the experiment there was some doubt as to the goats' willingness to eat the manzanita, but it has been found that where there is little else they will just as readily attack it as any other bushes.

The grazing season was so late this year on the Lassen forest that the goats did not begin operations until about the middle of June, but since then they have made rapid progress and the result promises to be a success from every point of view. The trails will first be opened and then kept free of sprouts by the goats, saving the government considerable labor in cutting them out by hand, as has been done heretofore, while the brushy forage which otherwise would have been wasted will support 3,000 goats very comfortably.

A COMPLETE FERTILIZER

Every experimental station in the United States which has made a test on fertilizers has recommended invariably a complete fertilizer in place of one containing only one element, such as nitrogen, phosphorus or potash, experience having proven that it is not only unprofitable but wasteful to the farmer to fertilize his land with anything but a complete fertilizer.

It should be remembered as a basis for guidance that the maximum yield of any crop is determined and gauged by the fertilizer element which the soil contains in least quantity. In other words, the excess amount of nitrogen and phosphorus will not make up for the deficiency in potash.

It is for this reason that we recommend a complete fertilizer on all average soils in preference to a fertilizer containing one or two of the principal elements.

We lay great stress on humus, as the United States Department of Agriculture has stated repeatedly that without humus in the soil the same would not respond to the use of fertilizers, no matter how rich in nitrogen and phosphorus, because the life of the soil and bearing practically the same relation to it that yeast sustains to the bread. John N. Huff of New York says:

"Without humus there is no fertility in the soil, and because of its character and action it is, with lime, the first portion of the essential soil constituents to be lost in cultivation."—C. I. B.

A WOMAN IN THE CHICKEN YARD

September is a good month to look about for stock, and if one has not already settled upon a particular variety, a hint in that direction may be of some use. Unless a woman can afford to keep plenty of help she should not keep over fifty fowls. I feel that I am writing for the woman who takes care of her chickens herself, and to her would say that if she has the room it is a good plan to keep a small flock of two varieties—one for broilers or fryers and one for laying eggs, and when it comes to the genuine business then give me the Black Minorca. The eggs are large and pure white. The hens are almost perpetual layers and do not make good mothers. The eggs will command the highest fancy prices, and if your stock is pure you can sell the eggs for sitings at prices according to the stock you keep.

The Plymouth Rocks or the Wyandottes are suitable breeds for broilers or for home use. I think there is more money in the selling of eggs to private customers, or even in the markets, than in broilers. There is less work and less worry. The latter food is a good layer if she does not set too fat, but when this occurs make a couple of her.

SEPTEMBER WORK ON THE FARM

About the first thing to do is to make a careful trip over every rod of fence on the place. Nail on every loose board and mark all other places that need greater repairs, to be made next day.

Don't put off whitewashing and preparing the poultry houses. Make them all snug.

Weed out the strawberry bed before the fall rains come on.

Sow kale and spinach this month for early spring use.

The flea beetles will be after the turnips this month. Spray with hellebore. Along toward the last of the month sow cabbage and cauliflower in drills if you intend to winter them in cold frames.

Give the celery a bit of nitrate of soda; it will stimulate growth.

Cut second-growth clover and put away for the sheep next winter.

Give the lambs for fall market all the good feed they can take care of now.

Weed out the flock. Sell off the old ewes, but keep the very best for breeding.

Feed is plentiful now, and this is a good time to rush fat on the old cows intended for the butcher.

Do not be in a hurry to shoe the horses unless they are to go on the road. Let them go unshod till the ground freezes.

You will be tempted to buy a boar at the state fair. All right, but be perfectly sure he is sound and his breeder reliable.

Go slow on feeding green corn fodder. It is likely to cause trouble with young stock.

Of course the silo is all ready for filling.

The white honey crop should be stored in a warm, dry room for ripening.

This is the month in which the Heslarian fly gets busy laying eggs. Better not sow wheat on the same ground twice in succession.

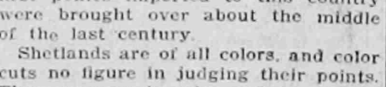
Do the wagon tires need resetting? Bad plan to wait till the wagon is needed for heavy loads.

GOOD POINTS OF A SHETLAND PONY

This is a good picture of Crown Prince, a champion Shetland pony and a fine specimen of the type. He is only 41 inches high and is well set up. Note his clean head, perfectly rounded body, sturdy legs and heavy mane and tail.

The ideal Shetland should have a round body and its legs be short and not buckled at the knees.

In buying a pony select one that has good knee action and holds his head



well up. Always avoid one that has a "sheepy" appearance.

The original Shetland ponies come from the Shetland Isles, off the extreme north coast of Scotland. It is known that ponies have inhabited these islands for nearly 200 years, but the first ponies imported to this country were brought over about the middle of the last century.

Shetlands are of all colors, and color cuts no figure in judging their points. They are easy to raise and are always in good demand.

NOTES AROUND THE FARM

Corn and clover hay make a ration that is hard to beat and that is a cheap one to produce in nearly every part of the country.

Eggs are injured by washing. Washed eggs will not keep so well, neither will they hatch so well. Wipe off the dirt with a moist wad of wool, but no more.

A poor line fence not only leads to damage to crops, but damage to friendships, that are worth more than all the crops on the farm.

CARE OF THE SUCKLING PIGS

They Must Have Clean, Warm Quarters to Protect Them Against Weather Changes.

BY R. B